

Diabetes (Description)

Diabetes occurs when the body can't make enough **insulin** or can't properly use the insulin it makes.

Diabetes is a condition marked by blood sugar, or **glucose** (GLOO-kos) that is too high.

Blood glucose (or blood sugar) is manufactured from the food we eat. Insulin is a hormone that helps the body's cells use glucose for energy. If **glucose** can't be absorbed by the cells, it builds up in the bloodstream instead, and high blood sugar is the result.

Over time, the high blood glucose levels of uncontrolled diabetes can be toxic to virtually every system of the body.

The Two Main Types Of Diabetes Are Type 1 Diabetes And Type 2 Diabetes.

Type 1 diabetes, once called juvenile-onset or insulin-dependent diabetes, is believed to occur when the immune system attacks and disables the insulin-making cells in the pancreas and there is not enough insulin to signal the body's cells to open up for glucose. The causes of type 1 diabetes are complex and still not completely understood.

Type 2 diabetes begins to occur when the body's cells stop responding to insulin's signal to open-up-for-glucose. The body responds by making more and more insulin. Ultimately the insulin-making cells begin to fail. Type 2 diabetes tends to develop gradually, taking years to develop into full-blown diabetes. Some kids don't notice any warning signs. Many kids find out they have type 2 diabetes when they go to their doctor for a routine check-up or some other completely different reason.

The key to managing type 1 and type 2 diabetes is to keep the blood glucose as close to normal as possible

TYPE 2 DIABETES

What can children do to lower their risk of developing type 2 diabetes?

Kids with type 2 diabetes are often

- Overweight
- Not physically active enough

Eat The Right Amounts Of Healthy Foods To Get To A Healthy Weight

Dietary changes can have a big impact on the management of **type 2 diabetes**. Choose a mix of healthy foods each day. The number of calories in a food shows how much energy you can get from it.

Following are some helpful and healthful tips.

- Drink water instead of a soda or sweet drinks.
- When eating fatty foods, such as French fries, eat smaller servings.
- Eat a piece of fresh fruit (apple, orange, or banana) or raw vegetable (carrots, celery, etc) instead of a candy bar or a bag of chips. If you want something crunchy to chew on, fruit or raw vegetables are a good choice because they stop you from feeling hungry and they are also nutritious.

Carbohydrate sources that are highly processed can cause sustained spikes (quick increases) in blood sugar and insulin levels.

- Choose whole grains and whole-grain products over highly processed carbohydrates. such as white bread, white rice, mashed potatoes, donuts, and some breakfast cereals.

Carbohydrates sources that aren't easily digested are less stressful on the body's insulin-making process

- Choose sources such as whole wheat, brown rice, other whole grains, most beans and nuts, and whole grain breakfast cereals which can result in lower, slower increases in blood sugar and insulin.

Good fats instead of bad fats can also affect diabetes.

- Choose Fats such as the polyunsaturated fats found in tuna, salmon, and many nuts, which can help with the dietary management aspect of diabetes.
- Avoid bad fats (trans fats) -- which are found in many margarines, packaged baked goods, fried foods in most fast-food restaurant foods, and in any product that lists "partially hydrogenated vegetable oil" on the label – which do just the opposite of good fats.

Be Active And Exercise Regularly

- Any amount of activity will help.
- Get up and play and move around everyday. There are lots of ways to move around more. Walk, ride a bike, dance, play ball or whatever you choose!
- Sign up for sports and physical education classes.
- With consent and approval of a parent or guardian you can ask a responsible adult or ask your teacher about sports or dance programs that you could join.
- Be more physically active in your free time.

You don't have to play a sport or go to a gym to move more. There are lots of things you can do at home and during the day

Type 1 Diabetes

In general kids with type 1 diabetes need to:

- Take insulin as prescribed
- eat a healthy, balanced diet, paying special attention to the amount of kinds of carbohydrates in each meal and the diabetes meal plan
- monitor blood sugar levels several times a day
- get regular physical activity

Nutrition recommendations for children and adolescents with type 1 diabetes should focus on achieving blood glucose goals without hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar). This can be accomplished through individualized meal planning, flexible insulin regimens and education promoting decision-making based on documentation and review of previous desired blood glucose readings.

Nutrient recommendations for children and adolescents with type 1 diabetes are based on requirements for all healthy children and adolescents. Children and adolescents should adopt healthful eating habits to ensure adequate intake of essential vitamins and minerals. by eating recommended amounts of fruits and vegetables.

How much the blood sugar level goes up after eating depends on the type of nutrients the food contains.

The three main types of nutrients found in foods are;

- carbohydrates (carbs)
- proteins
- fats

all of which provide energy in the form of calories.

All of these nutrients — in varying amounts — are needed to function normally. Foods containing carbohydrates cause blood sugar levels to go up the most. Foods that contain mostly protein and/or fat don't affect blood sugar levels nearly as much.

The type 1 diabetes meal plan won't restrict the child to only eating certain foods. It includes a selection of choices from the basic food groups, to achieve a nutritious balance. A meal plan is based on the child's age, activity level, schedule, and food likes and dislikes.

Meal plans typically consist of breakfast, lunch, and dinner with scheduled between-meal snacks. A meal plan created by the diabetes health care team should make it easier to keep the child's blood sugar within his or her target range. It should also be flexible enough to accommodate special situations like parties and holidays.

The type 1 diabetic child's meal plan may also recommend limiting extra fat and "empty" calories (foods that contain lots of calories but few nutrients like vitamins and minerals). because eating too much of them can lead to excess weight gain or long-term health problems even people without type 1 diabetes should limit these foods.

Exercise actually helps insulin work better in the body. Although some adjustments of meals and insulin may be needed, kids with diabetes can and should exercise.

All exercise is great — from walking the dog or riding a bike to playing team sports. To help avoid problems during exercise, kids with diabetes may need to:

- have an extra snack prior to activity
- carry snacks, water, and supplies with them when they exercise
- check their blood sugar levels before, during, or after exercise
- wear a medical identification bracelet

Make sure athletic coaches know about the child's diabetes and what they should do if problems occur.

The child's diabetes health care team can help with suggestions to help your child get ready for exercise or join a sport. They'll can also give you instructions to help respond to any diabetes problems that may occur during exercise like ;

- hypoglycemia (low blood sugar)
- hyperglycemia (high blood sugar)